ABSTRACT

A signal transmission system includes a transmitter and a receiver connected via a transmission line. When a control circuit **103** in the transmitter **200** outputs a test signal to a transmission line **123**, a voltage detection section **112** in the receiver **210** determines whether a voltage value on a terminal **115** falls within a given range or not. Based on the result, the control signal generation section **113** generates an instruction as to whether or not to change the current amount of the driving current. The control circuit **103** in the transmitter **100** drives the transmission line **123** with the driving current increased or decreased based on the instruction, and again outputs a test signal. This process is repeated until the voltage on the terminal **115** of the receiver **210** comes into the range. As a result, an optimum output impedance for the control circuit **103** of the transmitter **200** can be obtained. When transmitting a signal via the line, matching is dynamically established between the output impedance of the driving circuit and that of the line, whereby a fast signal transmission can be realized.